

*Medi-Cal Management Information
System and Decision Support System (MIS/DSS)*

*Data Enhancement Functional Specifications
for GeoCoding
Phase 5*



March 23, 2000

Table of Contents

1. Overview	1
2. Prerequisites / Pre-Conversion	1
3. Indexes	2
4. Input Data.....	2
5. Output Data.....	2
6. Reports	2
7. Selection / Drop Criteria	2
8. Process Flow / Data Enhancements.....	3
9. New Installation Considerations.....	3
10. Update Processing Considerations	3
11. Maps and Validation Tables	4
12. Tagging.....	4
13. Summary of Document Changes	4
Attachment 1. CRPINPT1 -- Eligibility Input File Layout.....	5
Attachment 2. CRPINPT2 -- Eligibility Output File Layout.....	8
Attachment 3. CRVPMEX – ITSD Combined Provider Master File (PMF) Input File Layout	11
Attachment 4. CRVPMEX2 – ITSD Combined Provider Master File (PMF) Output File Layout	16
Attachment 5. CRVMCPP -- Managed Care Provider File (MCP) Input File Layout	21
Attachment 6. CRVMCPP2 -- Managed Care Provider File (MCP) Output File Layout...	23

1. Overview

The GeoCode process is a combination of a customized Medi-Cal COBOL program (MDU001) and two third-party software products called “Code-1 Plus” and “Geographic Coding Plus” (GeoCode Plus), both licensed from Group 1 Software, Inc. The purpose of the process is to obtain latitude and longitude codes for eligibles and providers, based on address information.

The program is run as a pre-processing step for both the provider and eligibility conversion processes, and the input files are processed independently through this process before their respective conversion programs are executed.

Figure 1 gives a high-level view of the major conversion processes and helps illustrate the relationship between the processes. The shaded box represents the conversion process being discussed in this section.

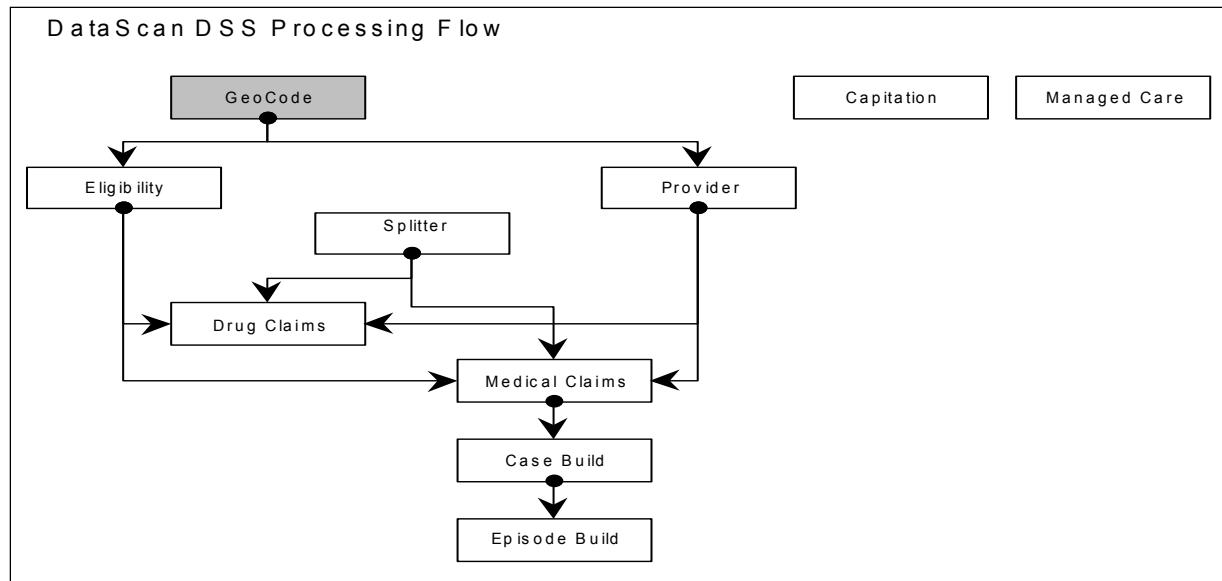


Figure 1. DataScan DSS Processing Flow

2. Prerequisites / Pre-Conversion

None

3. Indexes

None

4. Input Data

The program can process any one of three files, with the processing flow determined by a runtime parameter.

- Eligibility File
- ITSD Combined Provider Master File (PMF)
- Managed Care Provider File (MCP)

5. Output Data

The output of the GeoCode program is an output file with the input file layout, along with three geographical information data elements appended. The fields appended from the Group 1 software are zip code, latitude and longitude.

- Eligibility File
- ITSD Combined Provider Master File (PMF)
- Managed Care Provider File (MCP)

6. Reports

None

7. Selection / Drop Criteria

None

8. Process Flow / Data Enhancements

The provider's servicing address or the beneficiary address (two street fields, plus city, state and zip code fields) is prepared for passing to the Code-1 Plus software. The program combines the city and state fields, after removing any leading spaces, multiple spaces and commas. This clean up occurs because tests showed a much higher zip code-assignment rate with these minor clean-up steps. Code-1 Plus has parameters for how close to match spellings, etc., and how much additional data cleansing to do in trying to assign a valid zip code; these parameters are set to medium.

If the input zip code is valid (numeric, not all zeros and at least 5 digits long), the program passes the cleaned-up address information to the Code-1 Plus software to return the highest level zip code (5 or 9 digits) possible. The program then passes the Code-1 Plus zip code (use the input zip code if the Code-1 Plus zip code is not available) into the GeoCode Plus software to return the latitude and longitude values. The latitude and longitude codes returned from GeoCode Plus may be based on the nine-digit zip code passed to it or on only the first five digits of the zip code, depending on the precision of its zip code tables. To reformat the latitude and longitude codes, GeoCode Plus first returns a seven-digit number with a directional character suffix, e.g., 0385880N, 1213490W (Latitude 38.5880 degrees North by Longitude 121.3490 degrees West). The codes are then reformatted into seven-digit signed numbers with four decimal places, 038.5880 and -121.3490 in our example. Positive numbers represent North or East, negative numbers South or West. If GeoCode Plus does not return a latitude or longitude (spaces), latitude and longitude are set to zero.

If the input zip code is not valid, the program sets the latitude and longitude fields to zero.

9. New Installation Considerations

None

10. Update Processing Considerations

Group1 Software, Inc. supplies regularly scheduled software updates. These software updates keep the zip code assignments current and up-to-date.

11. Maps and Validation Tables

None

12. Tagging

None

13. Summary of Document Changes

<u>Date</u>	<u>Author</u>	<u>Phase</u>	<u>IRs</u>	<u>Description of Changes</u>
7/28/99	K. Key	5	1052	Updated attachments with new record layouts for CRPINPT1 and CRPINPT2.
7/28/99	K. Key	5	1343	Updated attachments with new record layouts for CRVPMEX, CRVPMEX2, CRVMCPP and CRVMCPP2.
1/12/99	K. Key	4	N/A	New Document. GeoCode information was removed from Provider and Eligibility and combined into one document.

Attachment 1. CRPINPT1 -- Eligibility Input File Layout

```
*****
* CRPINPT1
* THIS IS THE ELIGIBILITY RECORD FOR THE CONVERT
*
* RECORD LENGTH IS 384
*****
*****
```

```
* IR1052 - ADDED P5 CHANGES 4/08/99 LRECL=384 *
*          CNTY-OF-RES           INS-ENTRY-DATE *
*          MONTH-SPEC3-CNTY      ALIEN-ELIG   *
*          MONTH-SPEC3-AID       R-A-IND    *
*          MONTH-SPEC3-ELIG-STAT  *-----*
```

```
* REPLACE THIS WITH THE RAW DATA RECORD LAYOUT FROM THE *
* DATA MANAGER - 366 CHAR. LONG *
```

```
*****
05  POPS-SSN                      PIC X(09).
05  POPS-CIN-NUM                  PIC X(09).
05  POPS-CNTY-CASE-SERIAL.
   10 POPS-CNTY-SERIAL            PIC X(07).
   10 POPS-CNTY-FBU              PIC X(01).
   10 POPS-CNTY-PERS-NUM         PIC X(02).
05  POPS-XVI-CASE-SERIAL REDEFINES POPS-CNTY-CASE-SERIAL.
   10 POPS-XVI-CASE-1            PIC X(01).
   10 POPS-XVI-CASE-9            PIC X(09).
05  POPS-DOB                      PIC S9(08).
05  POPS-SEX-CODE                 PIC X(01).
05  POPS-ETHNIC-CODE              PIC X(01).
05  POPS-LANG-CODE                PIC X(01).
05  POPS-SSN-VER-CD              PIC X(01).
05  POPS-RED-MM                  PIC X(02).
05  POPS-CASE-NAME                PIC X(18).
05  POPS-BENE-NAME.
   10 POPS-BENE-LNAME            PIC X(20).
   10 POPS-BENE-FNAME            PIC X(15).
   10 POPS-BENE-MI               PIC X(01).
05  POPS-BENE-ADDRESS.
   10 POPS-BENE-ADDR-1           PIC X(26).
```

10	POPS-BENE-ADDR-2	PIC X(26).
10	POPS-BENE-CITY-ST	PIC X(20).
10	POPS-BENE-ZIP.	
15	POPS-BENE-ZIP-5	PIC X(05).
15	FILLER	PIC X(04).
05	POPS-MC-CNTY-DATA.	
10	POPS-MC-CNTY-DIST	PIC X(03).
*		
05	POPS-MONTHLY-DATA.	
10	POPS-START-DATE	PIC S9(08).
10	POPS-MONTH-CNTY	PIC X(02).
10	POPS-CNTY-OF-RES	PIC X(02).
10	POPS-MONTH-AID.	
15	POPS-MONTH-TENS	PIC X(01).
15	POPS-MONTH-UNITS	PIC X(01).
10	POPS-MONTH-ELIG.	
15	POPS-MONTH-ELIG1	PIC X(01).
15	POPS-MONTH-ELIG2	PIC X(01).
15	POPS-MONTH-ELIG3	PIC X(01).
10	POPS-MONTH-OC	PIC X(01).
10	POPS-MONTH-SOC	PIC X(05).
10	POPS-MONTH-HCPS.	
15	POPS-PLAN1-TYP	PIC X(01).
15	POPS-PLAN1-HCP	PIC X(03).
15	POPS-PLAN1-ST	PIC X(02).
15	POPS-PLAN2-TYP	PIC X(01).
15	POPS-PLAN2-HCP	PIC X(03).
15	POPS-PLAN2-ST	PIC X(02).
15	POPS-PLAN3-TYP	PIC X(01).
15	POPS-PLAN3-HCP	PIC X(03).
15	POPS-PLAN3-ST	PIC X(02).
15	POPS-PLAN4-TYP	PIC X(01).
15	POPS-PLAN4-HCP	PIC X(03).
15	POPS-PLAN4-ST	PIC X(02).
15	POPS-PLAN5-TYP	PIC X(01).
15	POPS-PLAN5-HCP	PIC X(03).
15	POPS-PLAN5-ST	PIC X(02).
10	POPS-MONTH-MC-STAT	PIC X(02).
10	POPS-MONTH-SURS	PIC X(03).
10	POPS-MONTH-SPEC1-CNTY	PIC X(02).
10	POPS-MONTH-SPEC1-AID	PIC X(02).
10	POPS-MONTH-SPEC1-ELIG-STAT.	

15	POPS-MONTH-SPEC1-STAT-1	PIC X(01).
15	POPS-MONTH-SPEC1-STAT-2	PIC X(01).
15	POPS-MONTH-SPEC1-STAT-3	PIC X(01).
10	POPS-MONTH-SPEC2-CNTY	PIC X(02).
10	POPS-MONTH-SPEC2-AID	PIC X(02).
10	POPS-MONTH-SPEC2-ELIG-STAT.	
15	POPS-MONTH-SPEC2-STAT-1	PIC X(01).
15	POPS-MONTH-SPEC2-STAT-2	PIC X(01).
15	POPS-MONTH-SPEC2-STAT-3	PIC X(01).
10	POPS-MONTH-SPEC3-CNTY	PIC X(02).
10	POPS-MONTH-SPEC3-AID	PIC X(02).
10	POPS-MONTH-SPEC3-ELIG-STAT.	
15	POPS-MONTH-SPEC3-STAT-1	PIC X(01).
15	POPS-MONTH-SPEC3-STAT-2	PIC X(01).
15	POPS-MONTH-SPEC3-STAT-3	PIC X(01).
10	POPS-INS-ENTRY-DATE	PIC X(06).
10	POPS-ALIEN-ELIG	PIC X(01).
10	POPS-R-A-IND	PIC X(01).
10	POPS-MONTH-PRCT-OBLG	PIC X(02).
05	POPS-BIRTHNAME-FIRST	PIC X(15).
05	POPS-BIRTHNAME-MID	PIC X(20).
05	POPS-BIRTHNAME-LAST	PIC X(20).
05	POPS-MOTHER-NAME	PIC X(20).
05	POPS-BIRTHPLACE-CITY	PIC X(20).
05	POPS-BIRTHPLACE-STATE	PIC X(02).
05	POPS-BIRTHPLACE-COUNTY	PIC X(02).
05	FILLER	PIC X(10).
05	POPS-FILE-DATE.	
10	POPS-FILE-MM	PIC 9(02).
10	POPS-FILE-YY1	PIC 9(02).
10	POPS-FILE-YY2	PIC 9(02).

Attachment 2. CRPINPT2 -- Eligibility Output File Layout

```
*****
* CRPINPT2
* THIS IS THE RECORD LAYOUT FOR POPS
* IT IS THE RESULT OF CRPINPT1 COPYBOOK +
* LATITUDE/LONGITUDE FIELDS AT THE END OF THE RECORD.
*
* RECORD LENGTH IS 409
*****
```

```
*****
* IR1052 - ADDED P5 CHANGES 4/08/99      LRECL=409          *
*          CNTY-OF-RES           INS-ENTRY-DATE          *
*          MONTH-SPEC3-CNTY       ALIEN-ELIG            *
*          MONTH-SPEC3-AID        R-A-IND              *
*          MONTH-SPEC3-ELIG-STAT   *                    *
*****
```

05	:PFX:-SSN	PIC X(09).
05	:PFX:-CIN-NUM	PIC X(09).
05	:PFX:-CNTY-CASE-SERIAL.	
10	:PFX:-CNTY-SERIAL	PIC X(07).
10	:PFX:-CNTY-FBU	PIC X(01).
10	:PFX:-CNTY-PERS-NUM	PIC X(02).
05	:PFX:-XVI-CASE-SERIAL REDEFINES :PFX:-CNTY-CASE-SERIAL.	
10	:PFX:-XVI-CASE-1	PIC X(01).
10	:PFX:-XVI-CASE-9	PIC X(09).
05	:PFX:-DOB	PIC S9(08).
05	:PFX:-SEX-CODE	PIC X(01).
05	:PFX:-ETHNIC-CODE	PIC X(01).
05	:PFX:-LANG-CODE	PIC X(01).
05	:PFX:-SSN-VER-CD	PIC X(01).
05	:PFX:-RED-MM	PIC X(02).
05	:PFX:-CASE-NAME	PIC X(18).
05	:PFX:-BENE-NAME.	
10	:PFX:-BENE-LNAME	PIC X(20).
10	:PFX:-BENE-FNAME	PIC X(15).
10	:PFX:-BENE-MI	PIC X(01).
05	:PFX:-BENE-ADDRESS.	
10	:PFX:-BENE-ADDR-1	PIC X(26).
10	:PFX:-BENE-ADDR-2	PIC X(26).

10	:PFX:-BENE-CITY-ST	PIC X(20).
10	:PFX:-BENE-ZIP.	
15	:PFX:-BENE-ZIP-5	PIC X(05).
15	FILLER	PIC X(04).
05	:PFX:-MC-CNTY-DATA.	
10	:PFX:-MC-CNTY-DIST	PIC X(03).
*		
05	:PFX:-MONTHLY-DATA.	
10	:PFX:-START-DATE	PIC S9(08).
10	:PFX:-MONTH-CNTY	PIC X(02).
10	:PFX:-CNTY-OF-RES	PIC X(02).
10	:PFX:-MONTH-AID.	
15	:PFX:-MONTH-TENS	PIC X(01).
15	:PFX:-MONTH-UNITS	PIC X(01).
10	:PFX:-MONTH-ELIG.	
15	:PFX:-MONTH-ELIG1	PIC X(01).
15	:PFX:-MONTH-ELIG2	PIC X(01).
15	:PFX:-MONTH-ELIG3	PIC X(01).
10	:PFX:-MONTH-OC	PIC X(01).
10	:PFX:-MONTH-SOC	PIC X(05).
10	:PFX:-MONTH-HCPS.	
15	:PFX:-PLAN1-TYP	PIC X(01).
15	:PFX:-PLAN1-HCP	PIC X(03).
15	:PFX:-PLAN1-ST	PIC X(02).
15	:PFX:-PLAN2-TYP	PIC X(01).
15	:PFX:-PLAN2-HCP	PIC X(03).
15	:PFX:-PLAN2-ST	PIC X(02).
15	:PFX:-PLAN3-TYP	PIC X(01).
15	:PFX:-PLAN3-HCP	PIC X(03).
15	:PFX:-PLAN3-ST	PIC X(02).
15	:PFX:-PLAN4-TYP	PIC X(01).
15	:PFX:-PLAN4-HCP	PIC X(03).
15	:PFX:-PLAN4-ST	PIC X(02).
15	:PFX:-PLAN5-TYP	PIC X(01).
15	:PFX:-PLAN5-HCP	PIC X(03).
15	:PFX:-PLAN5-ST	PIC X(02).
10	:PFX:-MONTH-MC-STAT	PIC X(02).
10	:PFX:-MONTH-SURS	PIC X(03).
10	:PFX:-MONTH-SPEC1-CNTY	PIC X(02).
10	:PFX:-MONTH-SPEC1-AID	PIC X(02).
10	:PFX:-MONTH-SPEC1-ELIG-STAT.	
15	:PFX:-MONTH-SPEC1-STAT-1	PIC X(01).

15	:PFX:-MONTH-SPEC1-STAT-2	PIC X(01).
15	:PFX:-MONTH-SPEC1-STAT-3	PIC X(01).
10	:PFX:-MONTH-SPEC2-CNTY	PIC X(02).
10	:PFX:-MONTH-SPEC2-AID	PIC X(02).
10	:PFX:-MONTH-SPEC2-ELIG-STAT.	
15	:PFX:-MONTH-SPEC2-STAT-1	PIC X(01).
15	:PFX:-MONTH-SPEC2-STAT-2	PIC X(01).
15	:PFX:-MONTH-SPEC2-STAT-3	PIC X(01).
10	:PFX:-MONTH-SPEC3-CNTY	PIC X(02).
10	:PFX:-MONTH-SPEC3-AID	PIC X(02).
10	:PFX:-MONTH-SPEC3-ELIG-STAT.	
15	:PFX:-MONTH-SPEC3-STAT-1	PIC X(01).
15	:PFX:-MONTH-SPEC3-STAT-2	PIC X(01).
15	:PFX:-MONTH-SPEC3-STAT-3	PIC X(01).
10	:PFX:-INS-ENTRY-DATE	PIC X(06).
10	:PFX:-ALIEN-ELIG	PIC X(01).
10	:PFX:-R-A-IND	PIC X(01).
10	:PFX:-MONTH-PRCT-OBLG	PIC X(02).
05	:PFX:-BIRTHNAME-FIRST	PIC X(15).
05	:PFX:-BIRTHNAME-MID	PIC X(20).
05	:PFX:-BIRTHNAME-LAST	PIC X(20).
05	:PFX:-MOTHER-NAME	PIC X(20).
05	:PFX:-BIRTHPLACE-CITY	PIC X(20).
05	:PFX:-BIRTHPLACE-STATE	PIC X(02).
05	:PFX:-BIRTHPLACE-COUNTY	PIC X(02).
05	FILLER	PIC X(10).
05	:PFX:-FILE-DATE.	
10	:PFX:-FILE-MM	PIC 9(02).
10	:PFX:-FILE-YY1	PIC 9(02).
10	:PFX:-FILE-YY2	PIC 9(02).
05	:PFX:-GROUP1-ZIP.	
10	:PFX:-GROUP1-ZIP5	PIC 9(05).
10	:PFX:-GROUP1-ZIP4	PIC 9(04).
05	:PFX:-GROUP1-LATITUDE	PIC S9(03)V9(4).
05	:PFX:-GROUP1-LONGITUDE	PIC S9(03)V9(4).
05	:PFX:-GROUP1-FILLER	PIC X(02).

Attachment 3. CRVPMEX – ITSD Combined Provider Master File (PMF) Input File Layout

```
*****
*   CRVPMEX
*
*   RECORD LENGTH IS 1416
*****
*****  

*   IR1343 06/07/99 HMCWEL NPI-PROV-TYP FROM X(2) TO X(3)
*                           PROV-TYP-205 FROM 9(2) TO 9(3)
*                           CATSERV-CD-206 FROM 9(2) TO 9(3)
*****  

01  PROV-MASTER-EXTRACT-RECORD.  

05  PMEX-KEY.  

    10  PMEX-PROV-NO-201.  

        15  PMEX-PROV-NO-PRE-1236    PIC X(03).  

            88  PMEX-AIDS-PREFIX      VALUE 'AID' 'AYD'.  

            88  PMEX-HOSPICE-PREFIX   VALUE 'HOS' 'HPC'.  

            88  PMEX-CONTRACT-PRE    VALUE 'HSC' 'HSW'  

                                         'HSX' 'MIC'.  

            88  TYPE-LA-WAIVER       VALUE 'HSW' 'ZZW'.  

            88  TYPE-OMIT-RECIP     VALUE 'ZZX'.  

            88  TYPE-BIRTH-CENTER   VALUE 'ABC'.  

        15  PMEX-PROV-NO-SUFFIX    PIC X(06).  

        15  PMEX-PROV-NO-SUFFIX-NUM REDEFINES  

            PMEX-PROV-NO-SUFFIX  

                                         PIC 9(06).  

    10  PMEX-DENTAL-PROV-NO          REDEFINES  

        PMEX-PROV-NO-201.  

        15  PMEX-DENTAL-BILL-PROV-NO PIC X(06).  

        15  FILLER                  PIC X(03).  

    10  PMEX-SUB-KEY                PIC X(01).  

        88  PMEX-MEDICAL-REC      VALUE 'M'.  

        88  PMEX-DENT-REC         VALUE 'D'.  

        88  PMEX-MGD-CARE-REC    VALUE 'C'.  

05  PMEX-NPI.  

    10  PMEX-NPI-CODE           PIC X(07).  

    10  PMEX-NPI-CHK-DIGIT     PIC X(01).
```

```

10  PMEX-NPI-LOC-CODE          PIC X(02).
10  PMEX-NPI-PROV-TYPE         PIC X(03).

05  PMEX-DATA-A.
    10  PMEX-MAIN-REC-TYP       PIC X(01).
        88  PMEX-REC-A           VALUE 'A'.
        88  TYPE-LTC              VALUE 'B'.
        88  TYPE-HOSP             VALUE 'C'.
        88  TYPE-LAB               VALUE 'D'.

    10  PMEX-TRAILER-INDS.
        15  PMEX-GRP-IND-260      PIC X(01).
            88  GROUP-PROVIDER    VALUE '1'.
        15  PMEX-CONT-PROC-IND-1280 PIC X(01).
            88  VALID-CONT-IND     VALUE '0' '1' '2' '3'.
            88  NO-CONT-PROC       VALUE '0'.
            88  CONTRACTED         VALUE '1' '2' '3'.
        15  PMEX-MED-XREF-IND-1223 PIC X(01).
            88  MEDICARE-XREF      VALUE '1'.

    10  PMEX-DT-PROV-ADDED-1219  PIC 9(08).

    10  PMEX-DENTAL-NAME.
        15  PMEX-DENTAL-FIRST-NAME PIC X(09).
        15  PMEX-DENTAL-LAST-NAME  PIC X(20).
        15  PMEX-DENTAL-MI         PIC X(01).

    10  PMEX-MEDICAL-NAME        REDEFINES
        PMEX-DENTAL-NAME.

        15  PMEX-LEGAL-NAME-202   PIC X(28).
        15  FILLER                 PIC X(02).

    10  PMEX-PROV-ADDR-203.
        15  PMEX-ADDR-ATTEN-LN    PIC X(24).
        15  PMEX-ADDR-LN1          PIC X(24).
        15  PMEX-ADDR-LN2          PIC X(24).
        15  PMEX-ADDR-CITY         PIC X(20).
        15  PMEX-ADDR-STATE        PIC X(02).

        15  PMEX-ADDR-ZIP.
            20  PMEX-ADDR-ZIP-5    PIC 9(05).
            20  PMEX-ADDR-ZIP-4    PIC 9(04).

    10  PMEX-PAY-TO-ADDR-204.
        15  PMEX-PAY-TO-ATTEN-LN  PIC X(24).
        15  PMEX-PAY-TO-LN1        PIC X(24).
        15  PMEX-PAY-TO-LN2        PIC X(24).
        15  PMEX-PAY-TO-CITY       PIC X(20).
        15  PMEX-PAY-TO-STATE      PIC X(02).

```

```

15  PMEX-PAY-TO-ZIP.
    20  PMEX-PAY-TO-ZIP-5      PIC 9(05).
    20  PMEX-PAY-TO-ZIP-4      PIC 9(04).

10  PMEX-PROV-TYP-205      PIC 9(03).
    88  VALID-PHARM-PROV-TYPE VALUE 24, 80.
    88  PMEX-TYPE-LTC         VALUE 17, 63, 64, 65.
    88  PMEX-TYPE-LAB         VALUE 09, 80.
    88  PMEX-TYPE-FOL         VALUE 11, 80.
    88  PMEX-CONTRACT-HOSP-TYPE VALUE 16, 60, 80, 81.
    88  TYPE-INPATIENT        VALUE 16, 35, 39, 60, 72,
                                80, 81, 91.
    88  TYPE-OUTPATIENT       VALUE 01, 14, 15, 34, 35,
                                36, 39 THRU 55, 58,
                                61, 73, 81, 90.
    88  TYPE-PHARMACY        VALUE 24, 80.
    88  TYPE-PHYSICIAN        VALUE 22, 26, 80.
    88  TYPE-VISION-CARE      VALUE 12, 15, 20, 23, 80,
                                81.
    88  TYPE-MED-SUPV         VALUE 02 THRU 08, 11, 13,
                                18, 19, 21, 25 THRU
                                31, 33, 37, 38, 57,
                                58, 80, 98.

    88  PMEX-TYPE-LTC-CLAIMS  VALUE 17, 63, 64, 65.
    88  PMEX-TYPE-LAB-CLAIMS  VALUE 09, 80.
    88  TYPE-INPATIENT-CLAIMS VALUE 16, 60, 72, 81, 91.
    88  TYPE-OUTPATIENT-CLAIMS VALUE 01, 14, 15, 34, 35,
                                36, 39 THRU 55, 58,
                                61, 73, 81, 90.
    88  TYPE-PHARMACY-CLAIMS  VALUE 24, 80.
    88  TYPE-PHYSICIAN-CLAIMS  VALUE 22, 24, 26, 80.
    88  TYPE-VISION-CARE-CLAIMS VALUE 12, 15, 16, 20, 22,
                                23, 26, 34, 40, 41,
                                43, 45, 47, 48, 50,
                                60, 61, 80, 81.
    88  TYPE-MED-SUPV-CLAIMS   VALUE 02 THRU 09, 11, 13,
                                18, 19, 21, 22, 24
                                THRU 32, 33, 37,
                                38, 57, 58, 80, 98.

    88  TYPE-CGP               VALUE 80, 81.
    88  TYPE-BIRTHING-CENTERS  VALUE 49.
    88  PMEX-PROV-TYP-CLIA    VALUE 09.
    88  PMEX-TYPE-INCONTINENCE-SUPPLY VALUE 02, 24.

```

```

10  PMEX-CATSERV-DATA
    OCCURS 11 TIMES
    INDEXED BY PMEX-CATSERV-INDEX, PMEX-CX1.
15  PMEX-CATSERV-CD-206      PIC 9(03).
    88  COS-INPATIENT        VALUE 02, 04, 06, 08,
                                84, 87, 98, 99.
    88  COS-OUTPATIENT       VALUE 09 THRU 22, 24,
                                52, 72, 75, 76, 78 THRU
                                83, 85, 88 THRU 97, 99.
    88  COS-LTC              VALUE 03 05 26 THRU 29
                                97, 99.
    88  COS-PHARMACY        VALUE 60, 99.
    88  COS-PHYSICIAN        VALUE 57, 99.
    88  COS-BIRTH-CENTER     VALUE 78.
    88  COS-OFP              VALUE 11, 12, 13.
15  PMEX-CATSERV-BEGIN-DT-207 PIC 9(08).
15  PMEX-CATSERV-END-DT-208 PIC 9(08).

10  PMEX-PROV-CNTY-CD-211      PIC 9(02).
10  PMEX-EMP-ID-NO-212        PIC X(09).
10  PMEX-SSN-213              PIC 9(09).
10  PMEX-MEDICARE-NO-214      PIC X(12).
10  PMEX-PROV-LIC-NO-217      PIC X(09).
10  PMEX-ENROL-STAT-DATA
    OCCURS 5 TIMES
    INDEXED BY PMEX-ENROL-STAT-INDEX.
15  PMEX-ENROL-STAT-CD-238    PIC 9(01).
    88  PROVIDER-ACTIVE      VALUE 1.
    88  PROVIDER-INACTIVE    VALUE 2.
    88  PROVIDER-PENDING     VALUE 3.
    88  PROVIDER-DECEASED   VALUE 4.
    88  PROVIDER-REJECTED    VALUE 5.
    88  PROVIDER-SUSPENDE   VALUE 6.
    88  PROVIDER-INDIRECT   VALUE 7.
    88  PROVIDER-CONTRACT   VALUE 8.
15  PMEX-STAT-FILLER         PIC X(01).
15  PMEX-STAT-EFF-DT-239      PIC 9(08).
15  PMEX-STAT-END-DT-1209    PIC 9(08).
10  PMEX-CHDP-PROV-NO-272      PIC X(11).
10  PMEX-CLIA-NUMBER         PIC X(10).
    88  PROVIDER-NOT-ENROLLED-IN-CLIA VALUE SPACES,
                                LOW-VALUE.

```

```

10  FILLER                      REDEFINES
    PMEX-CLIA-NUMBER.

15  PMEX-CLIA-FIRST-2-BYTES PIC X(02).
    88 PROVIDER-IS-DOD-VA  VALUE '99'.

15  PMEX-CLIA-3RD-BYTE      PIC X(01).
    88 PMEX-CLIA-VALID-3RD-BYTE VALUE 'A' THRU 'Z'.

15  PMEX-CLIA-LAST-7-BYTES PIC X(07).

10  PMEX-CLIA-TYPE-CERTIFICATION PIC 9(01).
    88 PMEX-CLIA-REGISTRATION  VALUE 1.
    88 PMEX-CLIA-REG-CERTIFICATE VALUE 2.
    88 PMEX-CLIA-ACCREDITATION VALUE 3.
    88 PMEX-CLIA-WAIVER        VALUE 4.
    88 PMEX-CLIA-PPMP-CODE     VALUE 5.

05  PMEX-PHYSICIAN-SPECIALTIES.
    10  PMEX-PROV-SPECIAL-DATA OCCURS 5 TIMES
        INDEXED BY PMEX-PHYS-SPE-INDEX, PMEX-PX1.
        20  PMEX-SPE-CD-220          PIC X(02).

05  PMEX-LTC-DATA.
    10  PMEX-LTC-NO-BEDS-232      PIC 9(05).
    10  PMEX-LTC-ACCOM-DATA OCCURS 20 TIMES.
        15  PMEX-LTC-ACCOM-CD-1243 PIC 9(02).
        15  PMEX-LTC-ACCOM-BEGIN-DT-1245 PIC 9(08).
        15  PMEX-LTC-ACCOM-END-DT-1246 PIC 9(08).

05  PMEX-HOSPITAL-DATA.
    10  PMEX-HOSP-NO-BEDS-232      PIC 9(05).
    10  PMEX-NON-CON-DATA.
        15  PMEX-NON-CON-ACCOM-DATA OCCURS 8 TIMES.
            20  PMEX-NON-CON-ACCOM-CD-267 PIC 9(02).
            20  PMEX-ACCOM-CD-DATES OCCURS 3 TIMES.
                25  PMEX-ACCOM-CD-BEG-DT-273 PIC 9(08).
                25  PMEX-ACCOM-CD-END-DT-297 PIC 9(08).

```

Attachment 4. CRVPMEX2 – ITSD Combined Provider Master File (PMF) Output File Layout

```
*****
*   CRVPMEX2
*
*   RECORD LENGTH IS 1441
*****
*****  

*   IR1343 06/07/99 HMCWEL NPI-PROV-TYP FROM X(2) TO X(3)
*                           PROV-TYP-205 FROM 9(2) TO 9(3)
*                           CATSERV-CD-206 FROM 9(2) TO 9(3)
*****  

01  PROV-MASTER-EXTRACT-RECORD.  

05  PMEX-KEY.  

    10  PMEX-PROV-NO-201.  

        15  PMEX-PROV-NO-PRE-1236    PIC X(03).  

            88  PMEX-AIDS-PREFIX      VALUE 'AID' 'AYD'.  

            88  PMEX-HOSPICE-PREFIX   VALUE 'HOS' 'HPC'.  

            88  PMEX-CONTRACT-PRE    VALUE 'HSC' 'HSW'  

                                         'HSX' 'MIC'.  

            88  TYPE-LA-WAIVER       VALUE 'HSW' 'ZZW'.  

            88  TYPE-OMIT-RECIP     VALUE 'ZZX'.  

            88  TYPE-BIRTH-CENTER   VALUE 'ABC'.  

        15  PMEX-PROV-NO-SUFFIX    PIC X(06).  

        15  PMEX-PROV-NO-SUFFIX-NUM REDEFINES  

            PMEX-PROV-NO-SUFFIX  

                                         PIC 9(06).  

    10  PMEX-DENTAL-PROV-NO          REDEFINES  

        PMEX-PROV-NO-201.  

        15  PMEX-DENTAL-BILL-PROV-NO PIC X(06).  

        15  FILLER                  PIC X(03).  

    10  PMEX-SUB-KEY                PIC X(01).  

        88  PMEX-MEDICAL-REC      VALUE 'M'.  

        88  PMEX-DENT-REC         VALUE 'D'.  

        88  PMEX-MGD-CARE-REC    VALUE 'C'.  

05  PMEX-NPI.  

    10  PMEX-NPI-CODE           PIC X(07).  

    10  PMEX-NPI-CHK-DIGIT     PIC X(01).
```

```

10  PMEX-NPI-LOC-CODE          PIC X(02).
10  PMEX-NPI-PROV-TYPE         PIC X(03).

05  PMEX-DATA-A.
    10  PMEX-MAIN-REC-TYP       PIC X(01).
        88  PMEX-REC-A           VALUE 'A'.
        88  TYPE-LTC              VALUE 'B'.
        88  TYPE-HOSP             VALUE 'C'.
        88  TYPE-LAB               VALUE 'D'.

    10  PMEX-TRAILER-INDS.
        15  PMEX-GRP-IND-260      PIC X(01).
            88  GROUP-PROVIDER    VALUE '1'.
        15  PMEX-CONT-PROC-IND-1280 PIC X(01).
            88  VALID-CONT-IND     VALUE '0' '1' '2' '3'.
            88  NO-CONT-PROC       VALUE '0'.
            88  CONTRACTED         VALUE '1' '2' '3'.
        15  PMEX-MED-XREF-IND-1223 PIC X(01).
            88  MEDICARE-XREF      VALUE '1'.

    10  PMEX-DT-PROV-ADDED-1219  PIC 9(08).

    10  PMEX-DENTAL-NAME.
        15  PMEX-DENTAL-FIRST-NAME PIC X(09).
        15  PMEX-DENTAL-LAST-NAME  PIC X(20).
        15  PMEX-DENTAL-MI         PIC X(01).

    10  PMEX-MEDICAL-NAME        REDEFINES
        PMEX-DENTAL-NAME.

        15  PMEX-LEGAL-NAME-202   PIC X(28).
        15  FILLER                 PIC X(02).

    10  PMEX-PROV-ADDR-203.
        15  PMEX-ADDR-ATTEN-LN    PIC X(24).
        15  PMEX-ADDR-LN1          PIC X(24).
        15  PMEX-ADDR-LN2          PIC X(24).
        15  PMEX-ADDR-CITY         PIC X(20).
        15  PMEX-ADDR-STATE        PIC X(02).

        15  PMEX-ADDR-ZIP.
            20  PMEX-ADDR-ZIP-5    PIC 9(05).
            20  PMEX-ADDR-ZIP-4    PIC 9(04).

    10  PMEX-PAY-TO-ADDR-204.
        15  PMEX-PAY-TO-ATTEN-LN  PIC X(24).
        15  PMEX-PAY-TO-LN1        PIC X(24).
        15  PMEX-PAY-TO-LN2        PIC X(24).
        15  PMEX-PAY-TO-CITY       PIC X(20).
        15  PMEX-PAY-TO-STATE      PIC X(02).

```

```

15  PMEX-PAY-TO-ZIP.
    20  PMEX-PAY-TO-ZIP-5      PIC 9(05).
    20  PMEX-PAY-TO-ZIP-4      PIC 9(04).

10  PMEX-PROV-TYP-205      PIC 9(03).
    88  VALID-PHARM-PROV-TYPE VALUE 24, 80.
    88  PMEX-TYPE-LTC         VALUE 17, 63, 64, 65.
    88  PMEX-TYPE-LAB         VALUE 09, 80.
    88  PMEX-TYPE-FOL         VALUE 11, 80.
    88  PMEX-CONTRACT-HOSP-TYPE VALUE 16, 60, 80, 81.
    88  TYPE-INPATIENT        VALUE 16, 35, 39, 60, 72,
                                80, 81, 91.
    88  TYPE-OUTPATIENT       VALUE 01, 14, 15, 34, 35,
                                36, 39 THRU 55, 58,
                                61, 73, 81, 90.
    88  TYPE-PHARMACY        VALUE 24, 80.
    88  TYPE-PHYSICIAN        VALUE 22, 26, 80.
    88  TYPE-VISION-CARE      VALUE 12, 15, 20, 23, 80,
                                81.
    88  TYPE-MED-SUPV         VALUE 02 THRU 08, 11, 13,
                                18, 19, 21, 25 THRU
                                31, 33, 37, 38, 57,
                                58, 80, 98.
    88  PMEX-TYPE-LTC-CLAIMS  VALUE 17, 63, 64, 65.
    88  PMEX-TYPE-LAB-CLAIMS  VALUE 09, 80.
    88  TYPE-INPATIENT-CLAIMS VALUE 16, 60, 72, 81, 91.
    88  TYPE-OUTPATIENT-CLAIMS VALUE 01, 14, 15, 34, 35,
                                36, 39 THRU 55, 58,
                                61, 73, 81, 90.
    88  TYPE-PHARMACY-CLAIMS  VALUE 24, 80.
    88  TYPE-PHYSICIAN-CLAIMS  VALUE 22, 24, 26, 80.
    88  TYPE-VISION-CARE-CLAIMS VALUE 12, 15, 16, 20, 22,
                                23, 26, 34, 40, 41,
                                43, 45, 47, 48, 50,
                                60, 61, 80, 81.
    88  TYPE-MED-SUPV-CLAIMS  VALUE 02 THRU 09, 11, 13,
                                18, 19, 21, 22, 24
                                THRU 32, 33, 37,
                                38, 57, 58, 80, 98.
    88  TYPE-CGP               VALUE 80, 81.
    88  TYPE-BIRTHING-CENTERS  VALUE 49.
    88  PMEX-PROV-TYP-CLIA    VALUE 09.
    88  PMEX-TYPE-INCONTINENCE-SUPPLY VALUE 02, 24.

```

```

10  PMEX-CATSERV-DATA
    OCCURS 11 TIMES
    INDEXED BY PMEX-CATSERV-INDEX, PMEX-CX1.
15  PMEX-CATSERV-CD-206      PIC 9(03).
    88  COS-INPATIENT        VALUE 02, 04, 06, 08,
                                84, 87, 98, 99.
    88  COS-OUTPATIENT       VALUE 09 THRU 22, 24,
                                52, 72, 75, 76, 78 THRU
                                83, 85, 88 THRU 97, 99.
    88  COS-LTC              VALUE 03 05 26 THRU 29
                                97, 99.
    88  COS-PHARMACY        VALUE 60, 99.
    88  COS-PHYSICIAN        VALUE 57, 99.
    88  COS-BIRTH-CENTER     VALUE 78.
    88  COS-OFP              VALUE 11, 12, 13.
15  PMEX-CATSERV-BEGIN-DT-207 PIC 9(08).
15  PMEX-CATSERV-END-DT-208 PIC 9(08).
10  PMEX-PROV-CNTY-CD-211      PIC 9(02).
10  PMEX-EMP-ID-NO-212        PIC X(09).
10  PMEX-SSN-213              PIC 9(09).
10  PMEX-MEDICARE-NO-214      PIC X(12).
10  PMEX-PROV-LIC-NO-217      PIC X(09).
10  PMEX-ENROL-STAT-DATA
    OCCURS 5 TIMES
    INDEXED BY PMEX-ENROL-STAT-INDEX.
15  PMEX-ENROL-STAT-CD-238  PIC 9(01).
    88  PROVIDER-ACTIVE      VALUE 1.
    88  PROVIDER-INACTIVE    VALUE 2.
    88  PROVIDER-PENDING     VALUE 3.
    88  PROVIDER-DECEASED   VALUE 4.
    88  PROVIDER-REJECTED    VALUE 5.
    88  PROVIDER-SUSPENDE   VALUE 6.
    88  PROVIDER-INDIRECT   VALUE 7.
    88  PROVIDER-CONTRACT   VALUE 8.
15  PMEX-STAT-FILLER        PIC X(01).
15  PMEX-STAT-EFF-DT-239    PIC 9(08).
15  PMEX-STAT-END-DT-1209   PIC 9(08).
10  PMEX-CHDP-PROV-NO-272   PIC X(11).
10  PMEX-CLIA-NUMBER        PIC X(10).
    88  PROVIDER-NOT-ENROLLED-IN-CLIA VALUE SPACES,
                                LOW-VALUE.
10  FILLER                  REDEFINES

```

```

PMEX-CLIA-NUMBER.

15  PMEX-CLIA-FIRST-2-BYTES PIC X(02).
    88 PROVIDER-IS-DOD-VA VALUE '99'.

15  PMEX-CLIA-3RD-BYTE      PIC X(01).
    88 PMEX-CLIA-VALID-3RD-BYTE VALUE 'A' THRU 'Z'.

15  PMEX-CLIA-LAST-7-BYTES PIC X(07).

10  PMEX-CLIA-TYPE-CERTIFICATION PIC 9(01).
    88 PMEX-CLIA-REGISTRATION VALUE 1.
    88 PMEX-CLIA-REG-CERTIFICATE VALUE 2.
    88 PMEX-CLIA-ACCREDITATION VALUE 3.
    88 PMEX-CLIA-WAIVER        VALUE 4.
    88 PMEX-CLIA-PPMP-CODE     VALUE 5.

05  PMEX-PHYSICIAN-SPECIALTIES.

10  PMEX-PROV-SPECIAL-DATA OCCURS 5 TIMES
    INDEXED BY PMEX-PHYS-SPE-INDEX, PMEX-PX1.
    20  PMEX-SPE-CD-220          PIC X(02).

05  PMEX-LTC-DATA.

10  PMEX-LTC-NO-BEDS-232      PIC 9(05).
10  PMEX-LTC-ACCOM-DATA OCCURS 20 TIMES.
    15  PMEX-LTC-ACCOM-CD-1243 PIC 9(02).
    15  PMEX-LTC-ACCOM-BEGIN-DT-1245 PIC 9(08).
    15  PMEX-LTC-ACCOM-END-DT-1246 PIC 9(08).

05  PMEX-HOSPITAL-DATA.

10  PMEX-HOSP-NO-BEDS-232      PIC 9(05).
10  PMEX-NON-CON-DATA.
    15  PMEX-NON-CON-ACCOM-DATA OCCURS 8 TIMES.
    20  PMEX-NON-CON-ACCOM-CD-267 PIC 9(02).
    20  PMEX-ACCOM-CD-DATES   OCCURS 3 TIMES.
    25  PMEX-ACCOM-CD-BEG-DT-273 PIC 9(08).
    25  PMEX-ACCOM-CD-END-DT-297 PIC 9(08).

05  PMEX-GROUP1-RESULTS.

10  PMEX-GROUP1-ZIP.
    15  PMEX-GROUP1-ZIP-5    PIC 9(05).
    15  PMEX-GROUP1-ZIP-4    PIC 9(04).
10  PMEX-GROUP1-LATITUDE      PIC S9(3)V9(4).
10  PMEX-GROUP1-LONGITUDE    PIC S9(3)V9(4).
10  PMEX-GROUP1-FILLER       PIC X(02).

```

Attachment 5. CRVMCPP -- Managed Care Provider File (MCP) Input File Layout

```
*****
* CRVMCPP
*
* RECORD LENGTH IS 282
*****
* IR1343 06/04/99 HMPTR PROV-TYP FROM X(2) TO X(3)
*****
01 MANAGED-CARE-PGM-PROVIDER.
05 MCPP-NAME.
    10 MCPP-LAST-NAME      PIC X(20).
    10 MCPP-FIRST-NAME    PIC X(09).
    05 MCPP-SERVICE-ADDR1  PIC X(24).
    05 MCPP-SERVICE-ADDR2  PIC X(24).
    05 MCPP-SERVICE-CITY   PIC X(20).
    05 MCPP-SERVICE-ST     PIC X(02).
    05 MCPP-SERVICE-ZIP-CD.
        10 MCPP-SERVICE-ZIP-5  PIC 9(05).
        10 MCPP-SERVICE-ZIP-4  PIC 9(04).
    05 MCPP-BILLING-ADDR1  PIC X(24).
    05 MCPP-BILLING-ADDR2  PIC X(24).
    05 MCPP-BILLING-CITY   PIC X(20).
    05 MCPP-BILLING-ST     PIC X(02).
    05 MCPP-BILLING-ZIP-CD.
        10 MCPP-BILLING-ZIP-5  PIC 9(05).
        10 MCPP-BILLING-ZIP-4  PIC 9(04).
    05 MCPP-PCP-TYP        PIC X(01).
    05 MCPP-PROVIDER-ID    PIC X(15).
    05 MCPP-TAX-ID         PIC X(09).
    05 MCPP-SSN             PIC X(09).
    05 MCPP-MEDI-CAL-ID    PIC X(12).
    05 MCPP-LICENSE-NUMBER PIC X(09).
    05 MCPP-CLIA-NUMBER    PIC X(10).
    05 MCPP-COUNTY-CD      PIC 9(02).
    05 MCPP-PROV-SPEC       PIC X(02).
    05 MCPP-PROV-TYP        PIC X(03).
    05 MCPP-BED-COUNT      PIC 9(05).
```

05	MCPP-PLAN-CD	PIC X(03).
05	MCPP-FILLER	PIC X(15).

Attachment 6. CRVMCPP2 -- Managed Care Provider File (MCP) Output File Layout

```
*****
* CRVMCPP2
*
* RECORD LENGTH IS 307
*****
* IR1343 06/04/99 HMPTR PROV-TYP FROM X(2) TO X(3)
*****
01 MANAGED-CARE-PGM-PROVIDER.
05 MCPP-NAME.
    10 MCPP-LAST-NAME      PIC X(20).
    10 MCPP-FIRST-NAME    PIC X(09).
    05 MCPP-SERVICE-ADDR1  PIC X(24).
    05 MCPP-SERVICE-ADDR2  PIC X(24).
    05 MCPP-SERVICE-CITY   PIC X(20).
    05 MCPP-SERVICE-ST     PIC X(02).
    05 MCPP-SERVICE-ZIP-CD.
        10 MCPP-SERVICE-ZIP-5  PIC 9(05).
        10 MCPP-SERVICE-ZIP-4  PIC 9(04).
    05 MCPP-BILLING-ADDR1  PIC X(24).
    05 MCPP-BILLING-ADDR2  PIC X(24).
    05 MCPP-BILLING-CITY   PIC X(20).
    05 MCPP-BILLING-ST     PIC X(02).
    05 MCPP-BILLING-ZIP-CD.
        10 MCPP-BILLING-ZIP-5  PIC 9(05).
        10 MCPP-BILLING-ZIP-4  PIC 9(04).
    05 MCPP-PCP-TYP        PIC X(01).
    05 MCPP-PROVIDER-ID    PIC X(15).
    05 MCPP-TAX-ID         PIC X(09).
    05 MCPP-SSN             PIC X(09).
    05 MCPP-MEDI-CAL-ID    PIC X(12).
    05 MCPP-LICENSE-NUMBER  PIC X(09).
    05 MCPP-CLIA-NUMBER    PIC X(10).
    05 MCPP-COUNTY-CD      PIC 9(02).
    05 MCPP-PROV-SPEC       PIC X(02).
    05 MCPP-PROV-TYP        PIC X(03).
    05 MCPP-BED-COUNT      PIC 9(05).
```

```
05  MCPP-PLAN-CD          PIC X(03).
05  MCPP-FILLER           PIC X(15).
05  MCPP-GROUP1-RESULTS.
10   MCPP-GROUP1-ZIP.
    15  MCPP-GROUP1-ZIP-5  PIC 9(05).
    15  MCPP-GROUP1-ZIP-4  PIC 9(04).
10   MCPP-GROUP1-LATITUDE  PIC S9(3)V9(4).
10   MCPP-GROUP1-LONGITUDE PIC S9(3)V9(4).
10   MCPP-GROUP1-FILLER   PIC X(02).
```